

FEDERAL TELECOMMUNICATION RECOMMENDATION



PROJECT 25 RADIO EQUIPMENT

**Prepared and Published By:
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Federal Telecommunication Recommendations (FedTelRecs) are issued by the Technology and Standards Division, National Communications System (NCS), after approval by the Federal Telecommunication Standards Committee and the Deputy Manager, NCS, pursuant to Executive Order 12472, NCS Directive 4-1, and Public Law 104-113.

- 1. Name of Recommendation.** Project 25 Radio Equipment .
- 2. Category.** Land Mobile Radio
- 3. Abstract.** This recommendation describes a family of 12.5 kHz bandwidth or less digital radios that can be used in a wide variety of Government applications. Project 25 is a joint effort of US Federal, state, and local government, and industry. State government participation is through the National Association of State Telecommunications Directors (NASTD); local government participation is through the Association of Public-safety Communications Officials, International, (APCO); and industry participation is through the Telecommunications Industry Association (TIA).
- 4. Key Words:** communication systems, Federal Telecommunication Recommendation, telecommunications, Land Mobile Radio, Project 25, NASTD, APCO.
- 5. Explanation.** This recommendation, by adoption of fifteen Telecommunications Industry Association (TIA) documents and two National Security Agency (NSA) specifications, defines numerous details of Project 25 Land Mobile Radio (LMR) equipment.

DES (Type 3) encryption is intended for the protection of unclassified information. Type 1 encryption is intended for the protection of US Government classified information.
- 6. Approving Authority.** Deputy Manager, National Communications System
- 7. Maintenance Agency.** Technology and Standards Division, National Communications System.
- 8. Objectives.** This recommendation is intended to facilitate interoperability among telecommunication facilities and systems of the Federal Government.
- 9. Applicability.** This recommendation may be used by all Federal departments and agencies in the design and procurement of radio equipment operating at Very High Frequencies (VHF) and Ultra High Frequencies (UHF).

10. Specifications. The following documents may be used. Telecommunications Industry Association (TIA) documents:

- a. TSB 102, Project 25 System and Standards Definition
- b. Interim Standard 102.AAAA, Project 25 DES Encryption Protocol
- c. TSB 102.AAAB, Project 25 Security Services Overview
- d. TSB 102.AACA, Project 25 OTAR Protocol
- e. TSB 102.BAAA, Project 25 Common Air Interface
- f. TSB 102.BAAC, Project 25 CAI Reserved Values
- g. TSB 102.BAAD, Project 25 CAI Operational Description for Conventional Channels
- h. Interim Standard 102.BABA, Project 25 Vocoder Description
- i. TSB 102.BAEA, Project 25 Data Overview
- j. TSB 102.BAEB, Project 25 Packet Data Specification
- k. TSB 102.BAEC, Project 25 Circuit Data Specification
- l. TSB 102.BAEE, Project 25 Radio Control Protocol Specification
- m. TSB 102.BAFA, Project 25 Network Management Interface Definition
- n. TSB 102.CAAA, Project 25 Transceiver Measurements and Methods
- o. TSB 102.CAAB, Project 25 Transceiver Performance Recommendations

and National Security Agency (NSA) documents:

- p. NSA Specification V23-94-1, Project 25 Type 1 Encryption (classified document).
- q. NSA Specification V23-95-1, Project 25 Type 1 OTAR (classified document).

11. Patents. Radio equipment implementing this recommendation may be covered by US and foreign patents.

12. Waivers. The use or non-use of the TIA documents referenced in section 10, above, is subject to the provisions of the National Technology Transfer and Advancement Act of 1995, Public Law 104-113.

13. Where to Obtain Copies. Additional copies of this document can be obtained from the NCS Technology and Standards Division (Attn: N6), 701 South Court House Road, Arlington, VA 22204. When requesting copies, refer to Federal Telecommunication Recommendation 1024A-1997, Project 25 Radio Equipment.

Copies of the fifteen referenced TIA documents can be obtained from Global Engineering Documents, tel. +1 800-854-7179 or +1 303-397-7956. A CD-ROM containing these TIA documents is also available to government personnel from the NCS Technology and Standards Division (Attn: N6, Project 25 CD-ROM), 701 South Court House Road, Arlington, VA 22204. Copies of the referenced classified NSA documents can be made available to appropriately cleared personnel by the National Security Agency, Attn: V32, Fort George G. Meade, MD 20755.